

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: CONWAY LAKE	Lake Area (ha): 525.48
Town: CONWAY	Maximum depth (m): 14.9
County: Carroll	Mean depth (m): 6.2
River Basin: Saco	Volume (m ³): 32390500
Latitude: 43°57'47" N	Relative depth: 0.6
Longitude: 71°03'37" W	Shore configuration: 2.81
Elevation (ft): 437	Areal water load (m/yr): 6.85
Shore length (m): 22800	Flushing rate (yr ⁻¹): 1.10
Watershed area (ha): 5982.9	P retention coeff.: 0.60
% watershed ponded: 0.9	Lake type: natural w/dam

BIOLOGICAL:

		1 February 1994	20 August 1993
DOM. PHYTOPLANKTON (% TOTAL)	#1	ASTERIONELLA 85%	DINOBRYON 40%
	#2		CHRYOSOPHAERELLA 30%
	#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)			570
CHLOROPHYLL-A (µg/L)			2.25
DOM. ZOOPLANKTON (% TOTAL)	#1	CALANOID COPEPOD 42%	POLYARTHRA 36%
	#2	NAUPLIUS LARVA 35%	KERATELLA 25%
	#3		NAUPLIUS LARVA 18%
ROTIFERS/LITER		6	103
MICROCRUSTACEA/LITER		20	49
ZOOPLANKTON ABUNDANCE (#/L)		26	152
VASCULAR PLANT ABUNDANCE			Scat/Common
SECCHI DISK TRANSPARENCY (m)			7.5
BOTTOM DISSOLVED OXYGEN (mg/L)		10.3	0.3
BACTERIA (E. coli, #/100 ml)	#1		2
	#2		68
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 6.4
Hypolimnion volume (m³): 2837500
Anoxic volume (m³): 784000

CHEMICAL:

Lake: CONWAY LAKE

Town: CONWAY

	1 February 1994		20 August 1993		
DEPTH (m)	4.0	8.0	2.5	7.0	12.0
pH (units)	6.5	6.4	6.9	6.4	6.0
A.N.C. (Alkalinity)	3.7	3.7	3.9	4.1	5.1
NITRATE NITROGEN	< 0.05	0.05	< 0.02		< 0.02
TOTAL KJELDAHL NITROGEN	0.20	0.37	0.30	0.15	0.21
TOTAL PHOSPHORUS	0.006	0.005	0.005	0.007	0.014
CONDUCTIVITY (μ mhos/cm)	36.2	36.2	35.5	35.9	37.6
APPARENT COLOR (cpu)			10	13	37
MAGNESIUM			0.31		
CALCIUM			2.0		
SODIUM			3.6		
POTASSIUM			< 0.40		
CHLORIDE	5	5	5		5
SULFATE	3	3	3		3
TN : TP	33	84	60		15
CALCITE SATURATION INDEX			3.5		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1993

D.O. S.D. PLANT CHL TOTAL CLASS

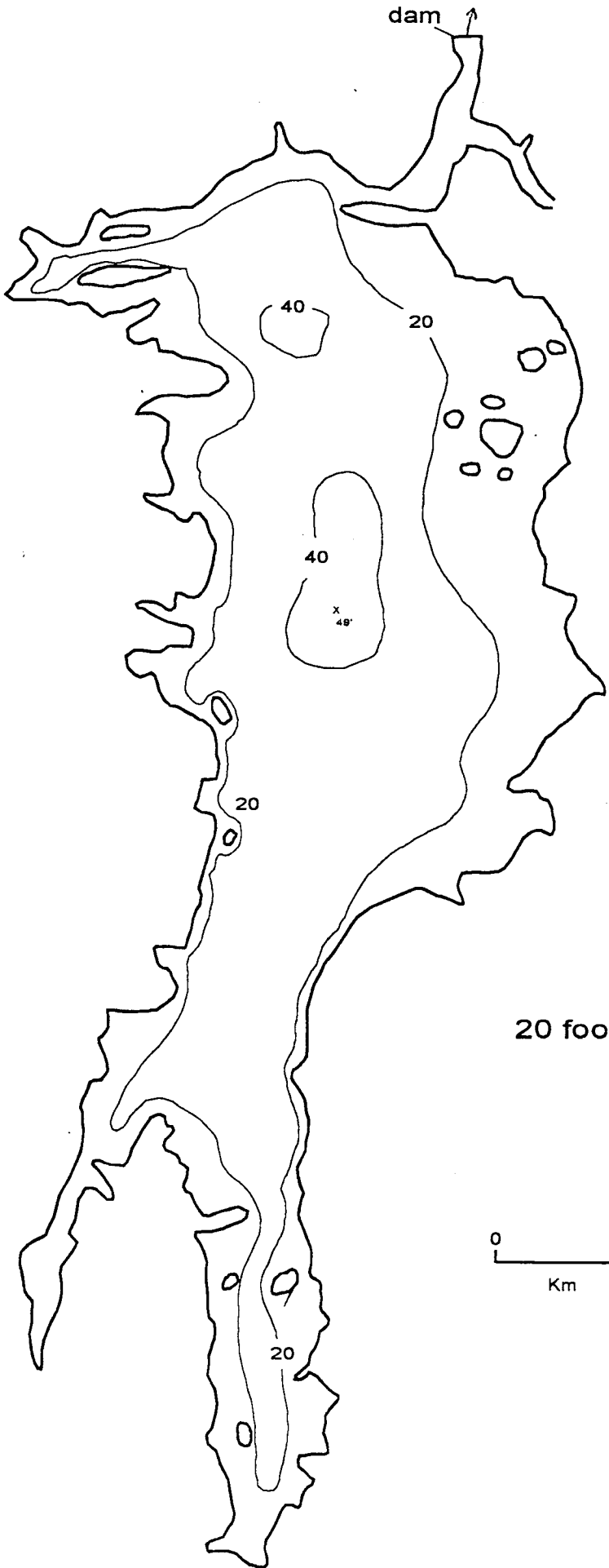
3	0	2	0	5	Oligo.
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COMMENTS:

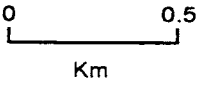
1. This lake was previously surveyed and classified in 1979. One less trophic point was received in 1994, but this moved the lake from a mesotrophic to oligotrophic classification. Rooted plant growth appeared slightly more abundant in 1994, and the water clarity nearly doubled (from 13 feet in 1979 to 25 feet in 1994).
2. A town beach was located near the dam in the narrow outlet channel; numerous ducks were observed near the beach.
3. Good, paved boat launch was present.
4. Chroomonas (65%) was the dominant wholewater phytoplankton.

Conway Lake

Conway



20 foot depth contours



[illegible]

COMMENTS :

*Dissolved oxygen values are in mg/L

The map shows the coastline of the Gulf of Mexico and the Yucatan Peninsula. Sampling locations are marked with letters A through Z. A scale bar indicates 0 to 100 Km. An arrow points to the 'beach' area.

AQUATIC PLANT SURVEY

LAKE: CONWAY LAKE	TOWN: CONWAY	DATE: 08/20/93
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TOWN: CONWAY

DATE: 08/20/93

[illegible]

OVERALL ABUNDANCE: Scat/Common

GENERAL OBSERVATIONS:

1. Both white and pink flowered varieties of Nymphaea were observed.
2. Five loons were present.
3. Most of the shoreline was undeveloped.